

# Rising Stars: An Analysis of the Persistence of Girls on the Run Curriculum on Program Alumnae

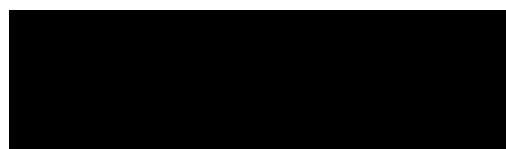
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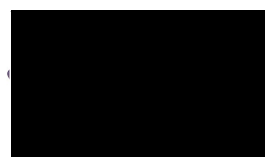
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First Reader



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Second Reader

## Introduction and Problem Statement

Girls in the United States face innumerable health risks throughout adolescence that can result in overweight/obesity, low self-esteem, and poor body image. Moreover, these health issues could lead to risky behaviors later in life<sup>\*</sup>

### *Overweight and Obesity*

Overweight and obesity has reached epidemic proportions in the United States, and U.S. children have not escaped the effects of excessive weight gain.<sup>†</sup> According to data from National Examination Survey from 2011-12, 16.9% of youth are overweight (i.e., body mass index [BMI]  $\geq$  85th percentile and  $<$  95th percentile for children [ages 2-19] of the same age and sex). The rise in prevalence among girls is particularly alarming—13.8% in 1999 to 16% in 2004.<sup>12</sup> Studies indicate that approximately 40% of overweight children will continue to have increased weight into adolescence and 75-80% of obese children (i.e., BMI  $\geq$  95th percentile for children of the same age at sex) become obese adults.<sup>3</sup> This may increase children's risk of developing non-communicable diseases (NCDs) such as diabetes, heart disease, cancer and psychosocial problems throughout the life course.<sup>4</sup> The stigma associated with being overweight can be pervasive and may mediate emotional and social problems. Numerous studies reveal that overweight and obesity are correlated to lower self-esteem and depressive symptoms, which results in lower health related quality of life (HRQoL).<sup>5</sup>

Although in North Carolina the percentage of overweight adolescents is lower than the national average, the prevalence of overweight female teens significantly increased from 2001 to 2011—12.8% to 16.4%. Additionally, 23% of African American high school females and 17% of Latina high school females in the state are considered overweight compared to only 13% of their Caucasian counterparts.<sup>6</sup>

### *Risky Behavior*

Weight problems may also be a determinant for risky behavior. North Carolina's weight problems reflect the national average—54.3% of adolescents in North Carolina were trying to lose weight while nationally 52.3% described themselves as trying to lose weight.<sup>6</sup> This is cause for concern as it may indicate poor body image. According to a Meredith College report, negative body image perceptions are higher among high school females than girls in middle school, but problematic body behaviors are higher among younger teens and pre-teens.

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<sup>\*</sup> Risky behaviors are behaviors that contribute to unintentional injuries and violence, sexual behaviors that contribute to unintended pregnancy and sexually transmitted diseases, including HIV infection, alcohol and other drug use, tobacco use, unhealthy dietary behaviors, inadequate physical activity.

<sup>†</sup> Body Mass Index (BMI) is used to determine if a child is overweight or obese. Overweight is defined as BMI at or above the 85<sup>th</sup> percentile, but below the 95<sup>th</sup> percentile for children of the same age and sex. Obese is defined as a BMI above the 95<sup>th</sup> percentile for children of the same age.<sup>21</sup>

Additionally, middle school girls in North Carolina may be more vulnerable to problematic eating behaviors, including skipping meals and not eating for 24 hours in order to lose weight, than high school females.<sup>6</sup> Despite middle school boys and girls having similar perceptions of themselves as overweight, middle school girls are significantly more likely to partake in risky behaviors such as vomiting, taking laxatives, skipping meals, or not eating for 24 hours to lose weight.<sup>6</sup>

The data examining thoughts of suicide and/or attempting suicide in the United States is troubling and even more alarming in North Carolina. Although the percentage of 9-12 grade students who seriously considered suicide has decreased from 29% in 1991 to 17% in 2013, the percentage of students who attempted suicide increased from 7.3% to 8% in the same time span. North Carolina's prevalence of 9-12 graders who considered attempting suicide is similar to the national average at 16.7%. However, the percentage of teenagers who attempted suicide that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse nearly doubles the national average—5.3% in North Carolina and 2.7% nationally.<sup>7</sup>

Sexual risky behaviors remain high among North Carolina girls. Although the prevalence of statewide teen pregnancy has declined since 1999, the birth rate of 38.3 per 1,000 teenage girls is still significantly higher than the national average of 32.2 per 1,000. Extreme disparities also exist by race; Latina teenagers have the highest teen pregnancy rate in North Carolina at 71.1 per 1,000. Young women in North Carolina also have a high incidence of STDs. In 2011, the incidence rate of newly diagnosed gonorrhea among 15-19 year old girls was 1,012 per 100,000 and 4,884.2 per 100,000 for chlamydia.<sup>6</sup> This data demonstrates the gravity of risky behavior among youth in the United States, especially among adolescent girls. Overweight and obesity may fuel many emotional issues that can lead to problems throughout the life course.

### *Physical Activity Interventions*

Evidence reflects the fundamental need for childhood obesity and risky behavior prevention interventions. Considerable attention has focused on physical activity (PA) interventions to curtail this growing epidemic. Ample evidence shows that higher levels of physical fitness can counteract the adverse effects, both physical and psychosocial, of overweight among adolescents.<sup>5</sup> In 2008, the federal government issued the first ever Physical Activity Guidelines for Americans. These guidelines recommend sixty minutes or more of daily PA for children and adolescents.<sup>8</sup> Activities should integrate components of moderate-intensity exercise (e.g. running, karate, or bicycle riding), muscle-strengthening activity (e.g. tree climbing, swinging, or gymnastics), or bone-strengthening exercise (e.g. hopping, jump rope, or basketball).<sup>8</sup>

The Centers for Disease Control and Prevention's (CDC) Youth Risk Behavior Surveillance System (YRBSS) shows a decline in the percentage of physically

active children in 9<sup>th</sup> through 12<sup>th</sup> grades nationally. The number of students who attended physical education classes on all 5 days of school declined from 41.6% in 1991 to 29.4% in 2013. The number of students who played on at least one sports team dropped from 55.1% in 1999 to 54.0% in 2013.<sup>2</sup> In North Carolina specifically, 74.1% of high school students did not participate in the recommended 60 minutes of physical activity 7 days a week; 17.7% did not even participate in at least 60 minutes of physical activity on at least one day. This reflects severe inactivity among youth.<sup>2</sup>

Data on children who meet these guidelines is limited and at times conflicting. According to nationally representative data from the 2001-2009 Health Behavior in School-aged Children quadrennial surveys, there was a significant increase in the number of days per year children from 6<sup>th</sup> through 10<sup>th</sup> grades participated in at least 60 minutes of physical activity.<sup>9</sup> From 2001/2002 to 2009/2010, the mean number of days of PA increased from 4.70 to 4.89 among boys and 3.99 to 4.14 among girls. Although this data seems promising, the prevalence of overweight increased among boys and girls during the same time period—14.9% overweight in 2001/2002 to 16.6% among boys and 13.4% to 15.7% among girls.<sup>9</sup> If physical activity is correlated with lowering overweight, this data demonstrates the need to scale up PA interventions among youth.

Glaring gender disparities also exist for physical activity. Girls are twice as likely to drop out of sports as boys. Furthermore, physical activity levels among girls decline between the ages of 8 and 19 years with the sharpest declines seen at the onset of adolescence.<sup>7</sup> Among 9<sup>th</sup> graders, 28% of adolescent girls and 20% of adolescent boys reported low physical activity; this jumped to 48% among girls and 30% among boys in 12<sup>th</sup> grade.<sup>10</sup> These differences could be due to girls' lack of motivation, lower self-esteem and shyness compared to boys.<sup>1</sup> A study conducted by Vu and colleagues found that girls report boys to be influential barriers and motivators in shaping their beliefs about physical activity.<sup>11</sup> Additionally, physical activities considered as “sports” or “exercise” by girls were associated with competition and selectiveness and therefore not perceived as fun.<sup>1</sup> Increasingly, evidence suggests that gender-based differences could be attributable to differences in biological factors such as motor skills, body composition, and socialization.<sup>12</sup> These results signify the strong influence of peers and the need to develop sports interventions for girls that include elements related to self-esteem and social support.<sup>11</sup>

A 2002 study also demonstrates the largest declines in physical activity are seen in third grade and fourth to sixth grade girls. Therefore, it is essential to focus on these age groups to increase levels of physical activity and reduce risky behavior among youth.<sup>12</sup> By targeting these specific vulnerable groups early on, interventions may be able to prevent negative behaviors and encourage positive behaviors throughout the life course.

### Physical Activity (PA) and Developmental Youth Sport Interventions (DYS)

PA interventions targeted towards girls are essential for tackling health problems such as overweight and obesity. Results from a multicenter longitudinal study show that when comparing 9 and 10-year-old active girls with inactive girls there were only slight differences in Body Mass Index (BMI). However, a 9-year follow up revealed that inactive girls became on average 10 to 15 pounds heavier than active girls.<sup>1</sup> Therefore, programs that get girls to be physically active and sustain their involvement throughout adolescence may reduce problems related to overweight later in life.<sup>1</sup> Studies also show that adolescents who play sports are eight times as likely to be active at age 24 as adolescents who are inactive and do not play sports.<sup>13</sup>

Programs can have a greater impact on the well-being of children by integrating sport and life skills into each lesson. Mounting evidence suggests that developmentally focused youth sport interventions (DYS) may protect against a range of risky behaviors. These programs use sport participation as a vehicle for driving physical activity while also providing children with the skills for psychological, emotional, social, and intellectual growth.<sup>12</sup> As explained by Gabriel and colleagues, achievements from DYS can be broken down into three types of developmental assets: physical assets (e.g. commitment to physical activity, sport-specific competencies, physically active lifestyles), psychological assets (e.g. self-determination, positive feelings towards physical activity, positive body image, self-esteem) and social assets (e.g. feelings of social acceptance close friendships, anti-bullying sentiment, and sense of civic engagement).<sup>12</sup>

Riiser and colleagues examined the effects of overweight on health related quality of life (HRQoL), physical fitness, and body mass index (BMI) on 13-15 year olds. The intervention group received 12-week access to tailored online messaging as well as motivational interviewing sessions while the control group received only follow-up with nurses throughout the 12-week intervention phase. Results demonstrated that cardiorespiratory fitness moderately increased among intervention group participants and in HRQoL. Furthermore, BMI increased significantly among control group participants indicating the preventative effect on the intervention group. This study sheds light on the effectiveness of DYS interventions that integrate internet technology into DYS into their programming.<sup>5</sup>

There are few programs that focus on the effects of DYS on girls specifically. Neumark-Sztainer et. al examined factors correlated with changes in physical activity and the effects on girls at-risk for sedentary lifestyles. Outcome measures included the association between physical activity and multiple personal factors including self-appearance, self-worth, athletic competence, body image, and

BMI. The study also examined the relationship between physical activity and socio-environmental factors such as social support and costs and/or resources. Evaluations from 201 high school girls recruited for the program and assessed three times over the 8-month intervention period showed that self-perception, time constraints and social support specifically related to physical activity were statistically significant. Future interventions for girls, therefore, should integrate elements of support from parents, teachers, and the community as well as lessons on positive body image. Barriers such as time constraints that limit girls' ability to participate should also be considered.<sup>10</sup>

As exemplified in these studies, it is essential to identify protective factors correlated with physical activity that can be integrated into interventions. After examining 108 studies on factors associated with physical activity in children and adolescents, Sallis and colleagues determined the need for future DYS studies due to inconsistencies among study designs. Rather than focusing on vulnerable sub-groups such as adolescent girls and children, the majority of studies reviewed by Sallis et al focused primarily on population-based samples of youth. Moreover, the majority of studies used cross-sectional designs, which limits the ability to observe changes in physical activity over time.<sup>10</sup> In order to create effective programs that protect against overweight and obesity, evaluations must be conducted over time to determine whether these factors are similar in high risk youth compared to the broader population and if programs are internalized and used after program completion.

### Girls on the Run Program Description and Background

As demonstrated by the literature review, a multitude of DYS interventions exist. However, there is a dearth of programs that focus specifically on girls in the most vulnerable age groups. Girls on the Run (GOTR) is an example of a DYS program for girls in 3<sup>rd</sup>-5<sup>th</sup> grade with the mission of educating and preparing girls for a lifetime of self-respect and healthy living. GOTR uses participation in sports as a mechanism to increase physical activity while also generating psychological, emotional, social, and intellectual growth.<sup>14,15</sup> The 12-week intervention integrates a 3-part positive youth development curriculum as well as training for a 5K running event. The program is grounded in the conceptual belief that many of adolescent girls' concerns are caused by lack of identity, lack of connectedness, and lack of voice in their lives.<sup>15</sup>

To tackle these three issues, the program contains a three-part curriculum: Part 1: All about Me—Getting to Know Who I am and What I stand for", "Part 2: Building My Team—Understanding the Importance of Cooperation" and "Part 3: Community Begins With Me—Learning about Community and Designing Our Community Service Project." Each portion of the curriculum enhances girls' self-esteem and sense of community, as well as what they can contribute to society.

Each session is structured to include 1) a warm-up to introduce the lesson, 2) stretching activities to present the topic, 3) a workout or running activities for the

girls to practice and review the lesson, 4) cool down stretching to summarize the topic and 5) a session closing for the coach(es) to provide encouragement for the girls to apply what they have learned.<sup>12</sup> Specific topics include healthy eating habits, media literacy, bullying, gossiping, community service, and positive self-talk. Because this program encourages self-efficacy, positive body image, and social support, alternatives to running such as walking, skipping, and jogging are also promoted.<sup>15</sup>

GOTR runs for 12 weeks, once in the spring and once in the fall. Teams meet twice a week for a total of 24 lessons. The program fosters community support by recruiting community residents as coaches to facilitate the lessons and 5k-event. All coaches attend a one-day intensive training led by national GOTR staff to become official coaches. Sessions include lessons on business aspects of program delivery, including evaluation protocol, program mission, goals, objectives, and curriculum, and how to deliver the program curriculum to 8-10 year old girls. All coaches must also be CPR and First Aid certified.<sup>15</sup>

Girls on the Run was founded in 1996 in Charlotte, North Carolina. The 24-lesson curriculum was piloted in 1996 and hosted only 13 girls. By 2000, Girls on the Run International was born and the program gained 5013C status. Currently, the program exists in over 200 cities across North America and serves over 150,000 girls with the assistance of over 120,000 volunteers.<sup>15</sup> Girls on the Run of the Triangle (GOTR-T) was established in 2000 and works in Orange, Wake, and Durham Counties across 29 program sites. GOTR-T works under the umbrella of GOTR International.<sup>15</sup>

### GOTR Specific Evaluations

To date, there have been 3 national non-experimental pre-to-post intervention studies to evaluate the effectiveness of GOTR programs nationally and one quasi-experimental evaluation. The first study showed statistically significant improvements in psychological assets including self-esteem, eating attitudes/behaviors, and body image ( $P < 0.05$ ) over the 12-week period between pre- and post-tests. The follow-up expanded its scope to include 6 more national GOTR councils and demonstrated significant increases in commitment to physical activity ( $P < 0.01$ ). The third and last study to use this non-experimental design increased the number of councils that represented geographical regions across the United States and also demonstrated improvements in psychological assets and physical assets from pre to post intervention ( $P < 0.01$ ).<sup>12</sup>

Although these studies yielded promising results, the weaker nature of the non-experimental design restricts the interpretation of collected data. To provide a more robust evaluation, in 2011 a quasi-experimental study was implemented that examined the three developmental assets at three different time points—pre-intervention, post-intervention and a five month follow-up. The study also categorized the exposure group into three different categories according to the

number of times they completed the 12-week GOTR program: 1) did not participate in GOTR before pre-intervention or during the study period (never exposed) 2) participated in GOTR in the fall before the study (newly exposed) and 3) participated in GOTR in the past and during the most recent GOTR season (previously exposed).<sup>12</sup>

Results from this study partially confirmed the effectiveness of GOTR in fostering positive physical and psychological assets for third to fifth grade girls. After adjustment for multiple comparisons, previous program participants had higher commitment to physical activity ( $P=0.006$ ) and physical activity levels ( $P=0.047$ ) compared to never exposed girls at pre-intervention. These results indicate that multiple exposures to GOTR curriculum may increase the levels of physical activity. Levels of physical activity also increased from pre-intervention to the five-month follow-up among never exposed and newly exposed participants ( $P<0.05$ ). Additionally, positive body image improved in newly exposed participants ( $P=0.03$ ) from pre to post-intervention. Although not statistically significant, self-esteem increased in newly exposed and previously exposed participants while it decreased among never exposed study participants.<sup>12</sup> This intriguing finding suggests that the program instigated some positive psychological response among program participants. Additionally, commitment to physical activity improved among all three exposure groups, but increased more substantially among newly exposed participants. Because commitment to physical activity is an important precursor to participation in physical activity, this finding is also encouraging.<sup>12</sup> This study supports the effectiveness of DYS and indicates the need to continue rigorous evaluations of such programs to understand how to effectively protect youth, and specifically third to fifth grade girls, from risky behavior.

### *GOTR Summit 2015*

In hopes of securing additional funding, resources, and marketing GOTR International is currently taking a more multi-faceted approach that involves evaluations of GOTR coaches, GOTR parents and program participants. At the recent GOTR 2015 Summit in San Diego, California, program staff discussed how best to measure the impact of GOTR on life skills and physical and psychological health outcomes and why these improvements occur. Improving coaching was an especially hot topic. Questions considered during discussion included: do coaches implement the curriculum as intended, do coaches create a mastery-oriented and caring climate and was coach training effective in preparing coaches? Building on these discussions, GOTR will update coach-training by focusing on communication among coaches and updating handbooks to provide lesson by lesson tips.<sup>16</sup>

Another large component of the summit was introducing a new standardized evaluation. Previously, individual councils designed and implemented surveys to test for program effectiveness. By now providing councils with a specific template



on how to analyze data, GOTR will be able to streamline evaluations and build a national database.<sup>16</sup>

The newest survey design was piloted in spring, 2014 among 28 councils and 5,124 GOTR participants. The survey was conducted at pre and post intervention and asked specific questions about confidence, connection, and character, competence (the completion of a 5k), caring behaviors, community involvement, and physical activity and sedentary behaviors. Preliminary results demonstrated that girls were more physically active post-intervention. On average girls were physically active 4.50 days per week compared to 5.14 days per week post-intervention. However, changes in confidence, connection, and character were less conclusive. There was no change in connection or character scores and only a .02 increase in confidence level from pre to post survey—2.92 to 2.94.<sup>16</sup> Negligible changes may be due to the less tangible nature of measuring the more psychological elements of the program. These preliminary results will help GOTR continue to shore up the curriculum and provide more effective training to coaches who have direct contact with program participants.<sup>16</sup>

#### *Girls on the Run of the Triangle Evaluations*

Girls on the Run of the Triangle has not yet conducted surveys using this new design. However, during the 2013 Fall season, a one page, double-sided GOTR-T-specific survey was administered to program participants to test their change throughout the 12-week sessions. The survey attempted to capture changes in physical activity, perception of health, emotions and emotional expression, body image, self-esteem and bullying behaviors. In total, 502 surveys were compiled and analyzed. It is also important to note, that this was the last time this particular survey design was implemented in the Triangle. Girls on the Run International recently released a standardized survey that all councils of GOTR will be required to use as of the Fall Season 2014.<sup>17</sup>

Surveys yielded some very positive and some negligible results about physical activity. The number of participants who reported *not* being physically active during the week decreased from 14 (3%) pre-intervention to 9 (2%) post-intervention. Looking specifically at first time program participants, there was a decrease between pre- and post- intervention in the number of girls who were not physically active during the week—14 (4%) to 8 (2%).<sup>17</sup> This is a promising trend reflects trends regarding frequency of physical activity for program participants overall. This also suggests that the program has minimal effect on first time participant's frequency of physical activity. However, research on self-reported physical activity indicates that data are often biased towards over-reporting when compared to more objectively assessed PA based on accelerometer data.

One of the central components of GOTR is training and completing a 5k run/walk to increase physical activity. Broadly speaking, 323 (66%) of program participants indicated they had completed at 5k at pre-intervention and increased to 446 (91%) at post-intervention. Moreover, the prevalence of first time program

participants reporting they had run or walked three consecutive miles increased substantially from pre to post intervention—185 (54%) pre-program survey to 299 (88%) post-program survey.<sup>17</sup> Overall, there was a positive trend; the GOTR curriculum may inspire participants to move more during the week and commit to longer period of physical activity.

With regards to psychological and emotional assets, the survey also yielded promising results. GOTR curriculum teaches that emotions are not positive or negative, but valuable internal prompts that are either comfortable or uncomfortable. Emotional health was measured by asking questions that had ten possible answer choices, of which participants could give multiple answers. The purpose of measuring emotional health was to gauge participants' comfort with recognizing and feeling emotions. Five answers were categorized as comfortable emotions (i.e. happy, excited, joyful, confident, and loved), while the other five were uncomfortable emotions (i.e. angry, sad, lonely, worried, and frustrated). Ideally, participants would recognize that all ten choices are acceptable to feel. Although results did not show a statistically significant change in emotional intelligence, there was an overall positive trend in all observed categories. For example, the average total emotions identified (out of 10) increased from 6.24 pre-program to 7.34 post-program.<sup>17</sup> First time participants had an even greater increase proportionally in demonstrated emotional health compared to returning participants. The average of total emotions identified increased from 5.98 to 7.11 from pre to post intervention. Therefore, girls who are exposed to GOTR curriculum for the first time may be more receptive to lessons regarding emotional health and expression.<sup>17</sup>

To test changes in body image, girls were asked to choose from a list of seven words—thin, healthy, different, strong, special, and awkward—that described their bodies and were prompted to pick as many answers as they liked. Post-intervention survey results indicated positive trends in feeling thinner, healthier, different, stronger, and special. There was a 7-percentage point increase in feeling special—59% to 66%—and an 11-percentage point increase in feeling different—32% to 43%. First time participants also experienced even greater increases in feeling healthy than participants overall—4% versus 3%— and feeling thin—5% versus 3%. Interestingly, surveys indicated that 7% of program participants felt awkward about their bodies from pre- to post- intervention and first time program participants felt more awkward about their bodies at program completion—4% pre-intervention to 6% post-intervention.<sup>17</sup> Because third to fifth grade is a period of significant physical and psychological growth, feelings of awkwardness may stem from program participants' personal experiences with changes in their bodies. These results suggest the need to tailor program curriculum to target feelings associated with this developmental phase.

Lessons 10-14 in the GOTR curriculum specifically focus on socially destructive behaviors such as bullying and gossiping. Results from the survey indicate that all program participants join GOTR with high awareness of bullying and its

deleterious effects. Girls were given a series of six statements and asked if these scenarios indicated bullying behavior. Over 90% of girls correctly recognized bullying behavior at pre- and post-surveys.<sup>17</sup> High levels of awareness could stem from GOTR lessons and/or from other outlets. Just because they recognize bullying does not mean they were victims of it, or partook in bullying. Therefore, this question does not necessarily indicate girls' behavior in regards to bullying.<sup>17</sup>

### This Study

“Rising Stars: An Analysis of the Persistence of Girls on the Run Curriculum on Program Alumnae” is an outcome analysis on the long-term effects of the Girls on the Run curriculum on recent program graduates. Although GOTR-T collects pre- and post-intervention survey data up to five months after program completion, it does not currently have information on the long-term effects (i.e., sustainability) of its program on GOTR-T graduates who finished the program two to four years ago. This information is important because it will help GOTR-T to determine further ways to support young girls' growth and development and work to be an empowering and positive force in their lives. Additionally, the current study builds upon previous studies by examining the longer-term effects of program curriculum and providing an intimate perspective of the effects on program alumnae in the Triangle specifically

The longitudinal examination of the effects of GOTR-T is vital in order to determine if and how the intervention is meeting its set targets, whether strategic changes in the intervention are necessary, and to provide their donor-base with their milestones and outcomes to secure funding. Lastly, results from this study will help shed light on the current health of girls in North Carolina specifically.

The primary investigator conducted a short survey that aims to understand if program graduates successfully internalized lessons from the curriculum. This survey focuses specifically on the topics of self-esteem, body image, and physical activity. Furthermore, the study aims to discern whether GOTR provided program participants with the tools necessary to avoid risky behavior and be healthy, and confident middle schoolers.

### Specific Aims

The aim of this study is to provide preliminary information to Girls on the Run of the Triangle about the long-term effects of the curriculum on girls several years after they graduate from the program. Because this is a small study with a short time-span (data were collected over a three week time span), the study cannot generate in-depth information about the GOTR program. Instead, this investigation should be thought of as a pilot study that can provide a snapshot of how program alumnae develop over time. The results will help GOTR programmers tailor survey designs in the future to capture more telling results.

This pilot study asks two questions: Does GOTR-T curriculum enhance program alumnae's physical, psychological and social assets and do program alumnae remember and use specific lessons identified in the survey in their every day lives? Two main hypotheses served as the basis for this study. The first was there would be high levels of physical activity, commitment to physical activity, self-esteem, and positive body image among program alumnae from two to four years ago. The second hypothesis was that the majority (at least 75%) of program alumnae from two to four years ago internalized and use these lessons from GOTR curriculum currently.

### Evaluation Design

The survey consists of a convenience sample of participants who completed the intervention in one of the 29 GOTR-T program sites representing 3 counties in the Triangle area of North Carolina—Wake, Durham, and Orange Counties. Each program site has approximately 10-20 participants during a GOTR season. The evaluation uses a cross-sectional survey design of GOTR-T participants who completed self-reported surveys. All necessary contact information from girls who participated in the program from two to four years ago was provided to the principle investigator by GOTR-T staff.

Prior to participating in the program, each girl was required to have parental consent as well as passive assent. Participants' names and other personal information were not used in the final report. Every effort was made to keep research records and other personal information confidential. Legal guardians and their daughters were given the opportunity to withdraw their consent at any time during the study without penalty. Girls on the Run of the Triangle and the University of North Carolina, Chapel Hill Institutional Review Board (IRB) approved study procedures. To expedite the process, the parental consent forms and survey were administered using Qualtrics, an online questionnaire tool. Once the principle investigator received parental consent from the guardian(s) of program alumnae, the survey was sent to the email address provided by the parent. It was encouraged that parental guardians provided the direct email address of their daughters, although they were allowed to include their own as well. All responses were aggregated and sent back to the principle investigator for analysis. To encourage participation in the study, five program participants were randomly selected to receive \$30 gift cards to Fleet Feet Sports.

The survey included modified questions from pre- and post-program surveys program participants completed during their time in the program as well as several follow-up questions on their perceptions of physical activity, self-confidence, and body image. Additionally, questions focused on specific lessons to understand if girls retained information from the curriculum and are using these lessons in their every day lives.

The survey used aspects of the following scales to measure global self-esteem (question six), body image (questions nine and ten), commitment to physical activity (question seven) and physical activity (questions three-five):

Self-esteem is measured through the Rosenberg Self-Esteem Scale, which is 10 questions (5 negative, 5 positive) and the girl rates their perception on a Likert scale.<sup>12, 18</sup> Body image is measured through the Schematic Figural Scale, which is a 7-item Likert type exam where seven female child figures illustrate body weight ranging from emaciated to obese. And finally, physical activity is measured through the Physical Activity Questionnaire for Children (PAQ-C), which is self-administered 7 day recall designed to assess habitual moderate-to-vigorous intensity physical activity during a specific season (i.e. fall, winter, spring) among older children aged 9 to 15 years. The PAQ-C includes 10 items, 9 of which are used to compute the summary physical activity score. All questions are scored on a 5-point scale, with higher scores indicating higher levels of physical activity.<sup>12, 18</sup>

<b>Table 1. Definitions of Scales Used</b>	
<b>Rosenberg Scale</b>	Ranges from 0-30 with scores 15-25 considered normal. Below 15 is considered low self-esteem. The scale is 10 questions (5 negative, 5 positive) and the girl rates their perception on a Likert scale.
<b>Schematic Figural Scale (Children/adolescent version)</b>	Ranges from 1-7. Girls are asked to identify self (which picture looks the most like you look?), and ideal self (which picture shows the way you want to look?) The scale is 7-item Likert type exam. Seven male and female child and adult figures were created to illustrate body weight ranging from very thin to obese. Images in the middle (3-5) are considered healthy body weight.
<b>Physical Activity Scale</b>	Commitment to be physically active was measured using the 12-item Likert type Commitment to Physical Activity Scale (adapted version). 0 to 36 is the scale range.
<b>Physical Activity Questionnaire for Children (PAQ-C)</b>	PAQ-C is self-administered 7-day recall designed to assess habitual moderate-to vigorous intensity physical activity during a specific season (i.e. fall, winter, spring) among older children aged 9 to 15 years. The PAQ-C includes 10 items, 9 of which are used to compute the summary physical activity score. All questions are scored on a 5-point scale, where the lowest activity response is one and the highest is five. Item ten can be used to quantify children who displayed unusual activity during the past seven days. This item is not used in the final summary score. The final PAQ-C score is computed by taking the average score from items one to nine. Similarly to each item score, an average score of one is the lowest activity level and a score of five shows the highest level of activity. <sup>19</sup>
<b>Youth Risk Behavior Surveillance System</b>	The Youth Risk Behavior Surveillance System (YRBSS) monitors six types of health-risk behaviors that contribute to the leading causes of death and disability among youth and adults: <ul style="list-style-type: none"> <li>• Behaviors that contribute to unintentional injuries and violence</li> <li>• Sexual behaviors that contribute to unintended pregnancy and sexually transmitted diseases, including HIV infection</li> <li>• Alcohol and other drug use</li> <li>• Tobacco use</li> <li>• Unhealthy dietary behaviors</li> <li>• Inadequate physical activity</li> </ul>

### Study Population

Study participants consisted of GOTR-T program alumnae who graduated from the program two to four years ago. GOTR-T provided the principle investigator contact information (email addresses and phone numbers) of parental guardian(s) from 526 alumnae. Because parental consent forms, passive assent forms, and the survey are online, only those contacts with valid email addresses could participate in this study. Of the 526 contacts, 502 had email addresses and of these email addresses 450 were still valid. To increase participation in the study, contacts who only had phone numbers were contacted and encouraged to participate in the study and provide email addresses where the survey could be sent. Of the 28 people contacted who had phone numbers but no email

addresses, one parent provided email contact information and consented for her daughter to be part of the study. Most phone numbers on GOTR contact lists were no longer active.

Of the 450 emails sent, 71 parental guardians consented to allow their girls' to participate (16%). Once parental consent was granted the survey was sent to the email address provided by the parental guardians on the consent form. In total, 47 GOTR-T program alumnae participated in this study with only one participant dropping out after the third survey question. The overall response rate was 10% (72/478).

### Statistical Analysis

All data was analyzed using the Qualtrics Survey Tool.<sup>20</sup> Due to the small sample size and lack of control group, no multivariate regression was conducted for this study. Minimum, maximum, standard deviation, variance, median, and mean values were collected for survey questions. A cross tabulation was created for questions on body image: choose the body shape you think looks like you vs. choose the body shape you want to look like; and for questions on recollection and use of specific GOTR-T lessons: Do you remember any lessons from Girls on the Run listed vs. do you use any of the lessons from Girls on the Run marked from the previous lesson?<sup>‡</sup>

### Results

#### *Background Characteristics*

Participant characteristics are described in Table 1. Participants were analyzed according to age, race/ethnicity, if they received financial assistance, and how many seasons of GOTR they completed.

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<sup>‡</sup> To see the survey administered to GOTR-T program alumnae please see Appendix.

*Table 2. GOTR-T Alumnae Study Participants' Characteristics*

	<b>N</b>	<b>%</b>
<b>Background Characteristics</b>		
<b>Age</b>		
10-11	0	0
12-13	30	64
≥14	17	36
<b>Race/Ethnicity</b>		
Caucasian	32	68
African American	3	6
Hispanic	3	6
Asian	3	6
Other	2	4
Missing	4	9 <sup>§</sup>
<b>Financial Assistance</b>		
No	37	79
Yes	8	17
Missing	2	4
<b># GOTR Seasons Completed</b>		
1	7	15
2-3	35	74
4-5	5	11
6	0	0
<b>Sample size (n)</b>	<b>47</b>	<b>100</b>

N = frequency; % = percent..

Compared with the survey conducted by GOTR-T in fall of 2014, the “Rising Stars” captured a much smaller sample of the population—47 compared to 502 in the Fall 2013 survey. There were large percentage differences for first time participants. In Fall 2013, 69% of the participants (346) were in the program for the first time. Of the girls participating in the program for the second time, there were only 15% (78). Of the girls participating in the program for the third time, there were only 9% (46).<sup>17</sup> Results from the current study were the opposite. Only 15% of the sample (7) were one-time program participants, 74% (35) completed 2 -3 seasons of GOTR and 11% (5) completed 4-5 seasons. Program repetition to some degree may indicate increased interest or participation on GOTR-T practices later in life.

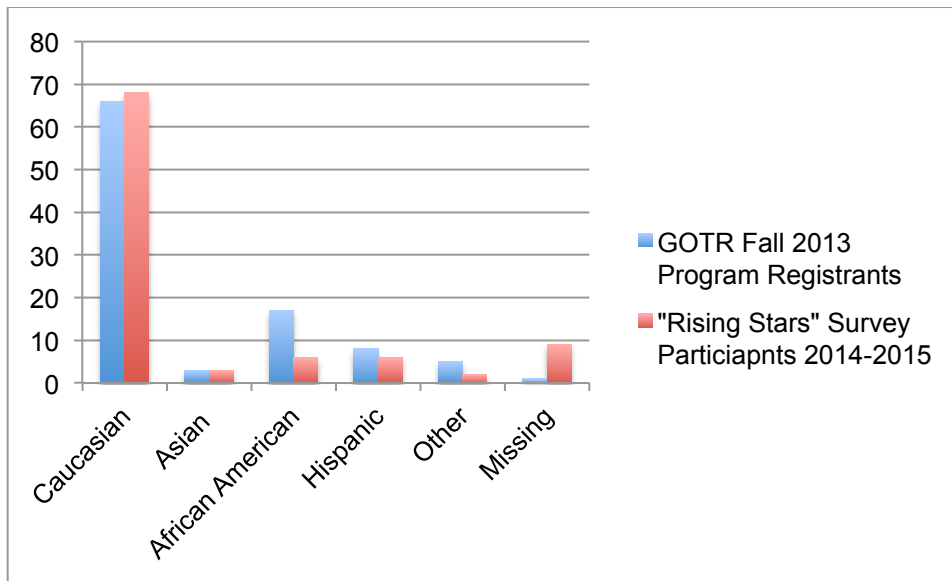
The percentage of Caucasian participants compared to of the Fall 2013 study is similar—68% vs. 66%. The percentage of Hispanic participants is also comparable—6% in current study and 8% in the Fall 2013 study The percentage

<sup>§</sup> Some percentages do not sum to 100% due to rounding



of Asian American participants was slightly higher in the current study—8% vs. 3% and other races were about the same—4% in current study vs. 5% in Fall 2013 study (see Figure 1 below).

*Figure 1. Program Registrants' Races by Percentage; GOTR Fall 2013 vs. "Rising Stars" Survey Participants 2014-2015<sup>17</sup>*



GOTR encourages participation in its program by providing financial assistance packages. However, only 8% of "Rising Stars" participants received some kind of financial assistance whereas 26% of Fall 2013 program participants were either awarded a scholarship or on some kind of individualized payment plan.

### *Physical Activity*

"Rising Stars" survey participants are generally staying active. The average number of days of physical activity was three days and 57% (26) participants are active 4 or more days a week. Over half—62% (29)—play on organized sports teams. Additionally, 72% of participants have run at least 3 miles consecutively since completing GOTR—9% (4) one time, 19% (19) 2-5 times, 9% (4) 6-10 times and 23% (11) 11 or more times. It is important to note that, 19% (9) have not participated in a 3 mile run after completing GOTR and 9% (4) only one time (see Table 3).

*Table 3: Physical Activity Levels among Program Participants* \*\*

	%
<b>On How Many of the Past Seven Days did you Participate in Physical Activity that made you Sweat and Breathe Hard?</b>	
0	0
1	9
2	17
3	17
≥4	57
<b>Total</b>	100 (N=47)
<b>Do You Play on Organized Sports Teams at your School</b>	
No	38
Yes	62
<b>Total</b>	100 (N=47)
<b># Times Run 3 Miles at Once After Program Completion</b>	
0	19
1	9
2-5	40
6-10	9
≥11	23
<b>Total</b>	100 (N=46)

#### *Commitment to Physical Activity*

Along with staying active, program participants seem committed to physical activity. For example, 33% (15) participants agree and 61% (28) strongly agree that physical activity is important to them. Furthermore, 39% (18) agree and 54% (25) strongly agree that life is better when they are physically active. Even when participants acknowledge the benefits of physical activity, the large majority still finds it to be hard work—63% (29) agree and 20% (9) strongly agree.

Furthermore, even though staying active is considered to be hard work many participants disagree or strongly disagree that they have to force themselves to be physically active—50% (23) disagree and 28% (13) strongly disagree with this statement (see Table 4).

\*\* For survey questions 4, 7, 8, 9, 10, 11, and 12 only 46 of the 47 total program participants responded.

*Table 4: How much do you agree or disagree with the following statements?<sup>††</sup>*

<b>Question</b>	<b>Strongly Disagree (%)</b>	<b>Disagree (%)</b>	<b>Agree (%)</b>	<b>Strongly Agree (%)</b>	<b>Total (N)</b>
PA is important to me	0	6	33	61	46, 100
Life is better because I am physically active	2	4	39	54	46, 100
I look forward to PA	4	11	35	50	46, 100
When I miss a day of PA, I like it	13	59	24	4	46, 100
PA is hard work	2	15	63	20	46, 100
I have to force myself to be physically active	28	50	17	4	46, 100

### *Self-Esteem and Bullying Behavior*

In some respects program participants demonstrated high levels of self-esteem. The large majority agree or strongly agree that they are comfortable with who they are—48% (22) agree and 46% (21) strongly agree. Only 3 participants disagree or strongly disagree with this statement. Moreover, 33% (15) agree and 61% (28) strongly agree that they feel there are a lot of good things about them. Responses to other questions regarding self-esteem were somewhat more mixed. Although 41% (19) disagree and 28% (13) strongly disagree that they feel useless at times, 30% (14) agree with this statement. Furthermore, 17% (8) agree and 11% (5) strongly agree that they wish they could have more respect for themselves (see Table 5). All survey participants correctly identified anti-bullying behavior and nearly all recognized bullying behavior (see Table 6).

<sup>††</sup> Some percentages do not sum to 100% due to rounding.

*Table 5: How much do you agree or disagree with the following statements<sup>##</sup>*

<b>Question</b>	<b>Strongly Disagree (%)</b>	<b>Disagree (%)</b>	<b>Agree (%)</b>	<b>Strongly Agree (%)</b>	<b>Total (N, %)</b>
I am comfortable with who I am	2	4	48	46	46, 100
I feel that there are a lot of good things about me	0	6	33	61	46, 100
I feel useless at times	28	41	30	0	46, 100
I wish I could have more respect for myself	35	35	17	11	46, 100

<sup>##</sup> Some percentages do not sum to 100% due to rounding.

*Table 6: For each of the following things Molly does to Karen, please tell us if you think what Molly is doing is bullying<sup>§§</sup>*

<b>Statement</b>	<b>Yes (N, %)</b>	<b>No (N, %)</b>	<b>Total (N, %)</b>
Molly invites Karen to sit next to her at lunch	0, 0	46, 100	46, 100
Molly calls Karen names	42, 91	4, 9	46, 100
Molly spreads a rumor about Karen	45, 98	1, 2	46, 100
Molly keeps secrets Karen told her	0, 0	46, 100	46, 100

<sup>§§</sup> Some percentages do not sum to 100% due to rounding.

### *Body Image*

The schematic body image scale is a 7-likert scale that ranges from emaciated (one on the scale) to obese (seven on the scale). Scores somewhere in the middle are considered healthy body weight. Results generally captured positive body image among survey participants. Of the 46 survey participants, 40% (17) described themselves as having medium body weight (4 on the scale) and 14 of these participants chose four as their ideal body weight. Four participants desired to be a three on the scale and one desired to be a five. These are all within the healthy range suggesting positive body image. Furthermore, 26% (12) described themselves as a three on the scale and eight of these participants desired to look like a three on the scale and one participant desired to look like a four on the scale. Two of these study participants desired to look like a two on the scale and one person none of which are in the healthy body image range.

### *Remembering Specific Lessons*

Lesson retention and use was relatively high among study participants. Of the 46 study participants, 83% (38) remembered these specific lessons and of these participants, 71% (27) of them use at least one of the lessons in their every day lives. Of these lessons the “plugging into the positive GOTR chord” and “I feel\_\_\_\_when you\_\_\_\_because\_\_\_\_, I would like you to\_\_\_\_\_” had the greatest retention and use—43% (16) and 35% 13 (see Table 6).

*Table 7: Do you use these lessons in your everyday life?*

<b>Lesson</b>	<b>Yes (%)</b>	<b>No (%)</b>	<b>Total (N, %)</b>
Do not use any of these lessons	30	71	38 <sup>***</sup> , 100
No Nonsense Nelly	19	81	38, 100
Plugging into the Positive GOTR Chord	43	67	38, 100
SBLR	24	76	38, 100
I feel when you because, I would like to	35	65	38, 100

<sup>\*\*\*</sup> Only those survey respondents who remembered specific lessons (Questions 12) were asked if they use any of these lessons (Question 13).

## Discussion

The current pilot study was designed to build on previous GOTR studies that explored the effectiveness of GOTR curriculum in fostering improved physical and psychological assets for girls in 3<sup>rd</sup>-5<sup>th</sup> grade. “Rising Stars” was the first investigation that evaluated the long-term effects of GOTR and if program alumnae from 2-4 years ago retained information from lessons about physical activity, self-esteem, and body image. The study also examined if program alumnae internalized specific information from specific lessons topics and use them in their everyday lives. This helped determine if GOTR topics did make some sort of impact on program participants that they think about in subsequent years. Survey results regarding physical activity, commitment to physical activity, self-esteem, anti-bullying behavior, and lesson recollection showed some promising results.

For the most part both hypotheses were supported. Tables 3 to 6 demonstrate that there were high levels of physical activity, commitment to physical activity, self-esteem, and positive body image among program alumnae from two to four years ago (Hypothesis One). There were especially high levels of physical activity and commitment to physical activity. This may be because questions about PA were more tangible and easier for survey participants to understand. The second hypothesis—that the majority (at least 50%) of program alumnae from two to four years ago internalized and use lesson from GOTR curriculum--was partially upheld. The majority of girls did remember lessons from the curriculum, however, not all girls who remembered lessons necessarily used them in their every day lives. Moreover, some lessons were better retained and used than others indicating that certain lessons made more of an impact on program participants.

### *Returning Program Participants*

Program repetition to some degree may indicate increased interest or participation on GOTR-T practices two to four years after program completion. It may also increase positive and healthy behaviors that will protect girls from risky behaviors. Once girls complete each season, GOTR staff could encourage first time and returning participants to register for subsequent seasons. Continued participation in GOTR may increase positive and healthy behaviors.

### *Physical Activity and Commitment to Physical Activity*

These results could suggest participants’ lack of physical activity and commitment to physical activity over time. However, It is difficult to determine if these participants’ lack of running is a component of their physical activity status. They may be involved in other activities that make them sweat and breathe hard that are not related to running. Commitment to physical activity results show that despite program participants’ awareness of the difficulty of PA, they still value PA indicating greater commitment to staying physically active. The combination of actual physical activity and commitment to staying physically active indicate

positive trends overall. This suggests the effectiveness of GOTR curriculum in promoting physical activity.

#### *Self-Esteem and Bullying Behaviors*

Results from self-esteem questions were at times very encouraging and at others very mixed. This may be due to the vagueness of the questions. Changing the wording of the questions and/or giving specific examples of responses may alleviate issues of confusion. Inconsistent responses may also indicate the need to focus on specific self-confidence issues in future GOTR curriculum.

According to GOTR curriculum, bullying includes socially destructive behaviors such as teasing and gossiping.<sup>17</sup> Responses to the survey question on identifying bullying are highly encouraging. There was 100% accuracy on recognizing anti-bullying behavior and near 100% accuracy on recognizing bullying behavior. This indicates high awareness of what bullying is and what it is not. These results, however, do not indicate whether girls are participating in bullying, or trying to avoid it. GOTR lessons should empower program participants to find ways to stop and/or transform bullying rather than simply identifying it.

#### *Body Image*

Most study participant choices were all within the healthy range. The majority of all study participants' choices for what they think they look like versus what they want to look did not deviate significantly. This consistency suggests relative acceptance of body image. However, two participants desired to look like a two on the scale and one person a one. This may be cause for concern as participants are out of the healthy body range. Since girls of this age bracket are susceptible to pressures to fit a certain body type, it is especially important that GOTR lessons support healthy body image and acceptance of body image.

#### *Remembering Specific Lessons*

It will be essential for GOTR staff to find out why 17% (8) of survey respondents do not remember any of these lessons and why 30% (11) of the survey respondents who do remember lessons, do not use them in their lives.

Additionally, GOTR staff should further examine why certain lessons are better retained than others and potentially mirror this program layout for all lessons.

#### Strengths and Limitations

The non-experimental evaluation design has many strengths that lend to its appropriateness. It is low cost and easy to implement since it draws on existing program record data sources. Furthermore, the evaluation process was not time intensive as it modified existing survey questions administered during GOTR-T session times. Because the survey was administered using online software, it also did not pose a heavy time burden on program participants. This may have helped yield a larger sample size. This approach is program specific and caters to the GOTR-T intervention goals. It is able to measure the specific outcomes



GOTR-T has identified as priorities and of interest. Because this evaluation design is a time series/longitudinal panel evaluation of a single group, it can provide new information on outcomes and furthermore provide data around sustained outcomes over time, which in turn strengthens the non-experimental design.

However, the evaluation design poses a number of limitations. First, the ability to determine the program effect is reduced since the methods are not as statistically strong as in an experimental design. Furthermore, there was no control group to assess whether the health outcomes of girls who participated in the GOTR-T intervention are comparable to girls who did not.

Currently, the majority of GOTR-T participants are affluent non-Hispanic white girls. It is unlikely that a random sample from the Triangle would reflect similar demographic characteristics and provide a suitable comparison group to the girls who participated in the current GOTR-T intervention. The ideal design to evaluate the GOTR intervention would be an experiment on a probability sample of adolescent girls from the population of interest. In this case, it would be ideal to examine populations at the national and regional levels and populations that are low-income and at high risk. These populations would then be randomly assigned to the treatment group (girls who participate in the GOTR program) or the control group (girls who do not participate in GOTR) and followed over time. Alternatively, a case control study could be used. If GOTR participants tend to be from a particular group as they are in this study (i.e. affluent and Caucasian) then it would be feasible to recruit comparable controls from the same community. In this case, girls who attend the same schools as the exposure group could be used as controls. Like the experimental design, the investigators could compare the two groups over time on the outcome of interest.

Within this evaluation design there are major types of systematic errors. A design issue with all of GOTR evaluations discussed in this paper, including this current study, is how participants are selected. If girls and/or parents self-select into GOTR it will likely introduce major bias into any evaluation of program effects. Random assignment to treatment and control groups is the hallmark of strong experimental designs. Selection bias is also present due to the fact that a girl has to register and pay a fee of \$200. This may have deterred less affluent populations from participating in the program. Another limitation is that many contacts were lost because they did not have valid email addresses. Although using Qualtrics expedited data collection, it made it difficult to include program alumnae who did not have regular email addresses and/or could not check their email on a regular basis. This may have further biased the study pool.

It is also possible the response rate was only 10% due to the short time span of the study. The IRB parental consent requirement hindered timely data collection. Because the survey was set up as a two-step process—first, obtaining parental consent through Qualtrics and then sending the survey to program participants—

there may have been some loss to follow-up. To yield a larger sample size in the future, there should be more rigorous follow-up over a longer period of time of both parents and survey participants. To circumvent high non-response rates, subsequent surveys could include more appealing incentives for partaking in the survey. For example, perhaps more gift cards to Fleet Feet Sports could be awarded. Additionally, principle investigators in the future could advertise for the study within the community or even at schools to help raise awareness.

Furthermore, because program participants have not been involved in GOTR-T for at least two years prior to this survey their experiences with physical activity, self-esteem, bullying, and recollection of program lessons could have been influenced by a multitude of other factors. When examining the results from this single survey, it is difficult to determine if the difference is a result of the intervention or some other unanticipated event that occurred in the two to four years after completing the GOTR-T program. Some inaccuracies of measurement of the exposure and health outcome are inevitable. These weaknesses mentioned compromise the internal validity of this study.

### Recommendations and Next Steps

Although there are many limitations to this investigative study, it does shed light on the effectiveness of GOTR in improving girls' lives. Results suggest that lessons on physical activity, commitment to physical activity, self-esteem, and body image do make some sort of impact on program alumnae. Additionally, program alumnae involved in this survey did internalize certain lessons and use them in their lives. Survey questions from this pilot study can be expanded upon for future GOTR surveys. Providing qualitative information from individual interviews and focus group discussions may also provide a richer understanding of the effects of GOTR curriculum on program graduates. With adequate funding and a longer time span for data collection, a more rigorous evaluation of GOTR impact is certainly possible using either a case-control or experimental design.

As demonstrated by responses in this survey, future lessons may need to investigate and improve how GOTR promotes and supports higher levels of self-esteem. More specifically, lessons on feeling empowered and useful as well as having self-respect should be promoted. Additionally, questions on self-esteem and body image are not as tangible as questions on physical activity. Survey questions that are less salient may need to be modified. The vast majority of survey respondents were physically active and committed to physical activity, which is indeed promising. However, it is important to note that the vast majority of participants were program repeaters, which may indicate greater interest in physical activity. Therefore, future GOTR lessons should encourage program participants on how to make GOTR a part of their every day lives.

The survey from this pilot study gives a small glimpse at what DYS interventions can do to prevent risky behavior and promote positive healthy behavior. To generate more compelling results and specific recommendations, this study

should be expanded upon. Not only can GOTR learn from these results, but also other organizations promoting physical activity, self-esteem and positive body image for children can adopt some of these study designs and recommendations. In a time when childhood overweight and risky behaviors related to poor self-esteem and body image remain high, effective DYS interventions are especially important. Longitudinal examinations of these emerging programs will help shape and improve future DYS interventions and potentially lower risky behaviors among youth over time.



## Appendix:

### **Rising Stars: Girls on the Run of the Triangle Survey**

**1. How old are you?**

- a. 10 or younger
- b. 11
- c. 12
- d. 13
- e. 14 or older

**2. How many seasons of Girls on the Run did you complete?**

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5
- f. 6

**3. On how many of the past 7 days did you exercise or participate in physical activity for at least 20 minutes that made you sweat and breathe hard?**

- a. 0 days
- b. 1 day
- c. 2 days
- d. 3 days
- e. 4 or more days

**4. Since finishing Girls on the Run how many times have you run 3 miles all at once?**

- a. 0 days
- b. 1 times
- c. 2-5 times
- d. 6-10 times
- e. 11 or more times

**5. Do you play on any organized sports teams at your school?**

- a. Yes
- b. No

**6. How much do you agree or disagree with the following statements?**

- I am comfortable with who I am
  - a) Strongly Disagree
  - b) Disagree
  - c) Agree
  - d) Strongly Agree

- I feel that there are a lot of good things about me
  - a) Strongly Disagree
  - b) Disagree
  - c) Agree
  - d) Strongly Agree
- I feel useless at times
  - a) Strongly Disagree
  - b) Somewhat Disagree
  - c) Somewhat Agree
  - d) Strongly Agree
- I wish I could have more respect for myself
  - a) Strongly Disagree
  - b) Disagree
  - c) Agree
  - d) Strongly Agree

**7. How much do you agree or disagree with the following Statements?**

- Physical activity is important to me
  - a) Strongly Disagree
  - b) Disagree
  - c) Agree
  - d) Strongly Agree
- Life is better because I am physically active
  - a) Strongly Disagree
  - b) Disagree
  - c) Agree
  - d) Strongly Agree
- I look forward to physical activity
  - a) Strongly Disagree
  - b) Disagree
  - c) Agree
  - d) Strongly Agree
- When I miss a day of physical activity, I like it
  - a) Disagree
  - b) Disagree
  - c) Agree
  - d) Strongly Agree
- Physical activity is hard work
  - a) Strongly Disagree
  - b) Disagree
  - c) Agree
  - d) Strongly Agree
- I have to force myself to be physically active
  - a) Strongly Disagree
  - b) Disagree
  - c) Agree
  - d) Strongly Agree

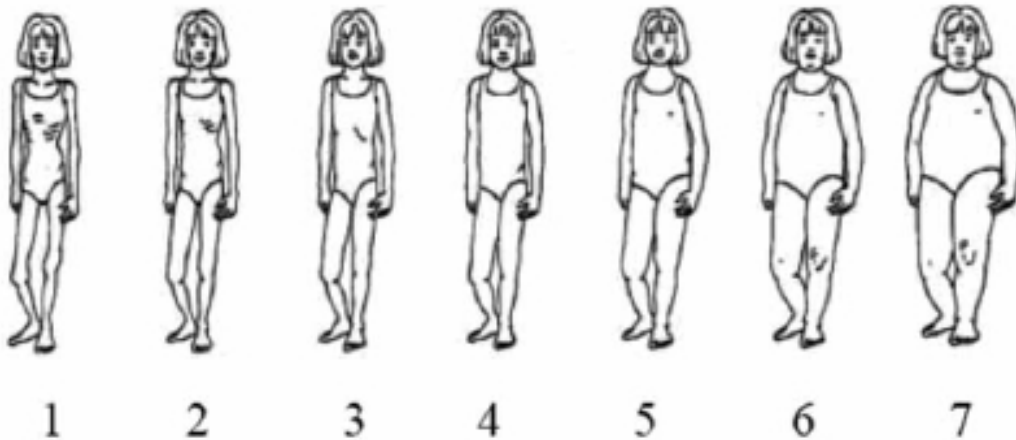
8. For each of the following things Molly does to Karen, please tell us if you think what Molly is doing is BULLYING.

YES

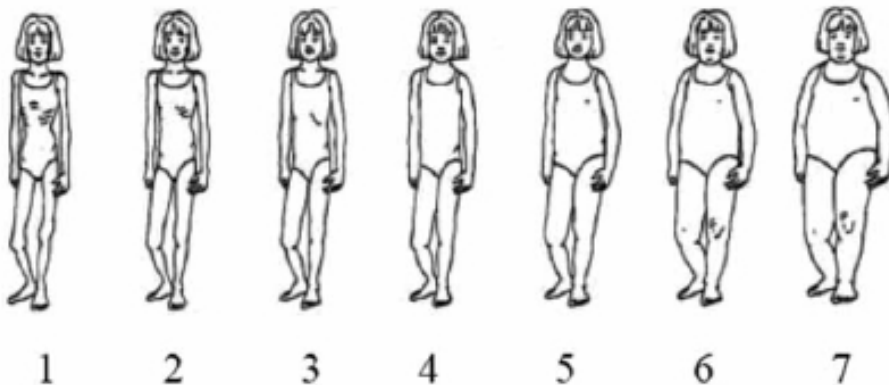
NO

- a) Molly invites Karen to sit next to her at lunch. Is this bullying?
- b) Molly calls Karen names. Is this bullying?
- c) Molly spreads a rumor about Karen. Is this bullying?
- d) Molly keeps a secret Karen told her. Is this bullying?

9. Circle the number of the body shape which **you think looks like you.**



10) Circle the number of the body shape which **you want to look like.**



11) Do you remember any of the lessons from Girls on the Run listed below? (check all that apply, or check "do not remember any of these lessons")

- Do not remember any of these lessons

- No Nonsense Nelly
- The chord
- SBLR
- I feel when you because, I would like you to

12) Do you use any of the lessons from Girls on the Run marked above in your every day life? (check all that apply, or check “do not remember any of these lessons”)

- Do not remember any of these lessons
- No Nonsense Nelly
- Plugging into the Positive GOTR chord
- SBLR
- I feel when you because, I would like you to

**Thank You!!**



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